SONY

3-753-197-21 (3) T63A

FM Stereo/FM-AM Receiver

Operating Instructions

STR-AV770X

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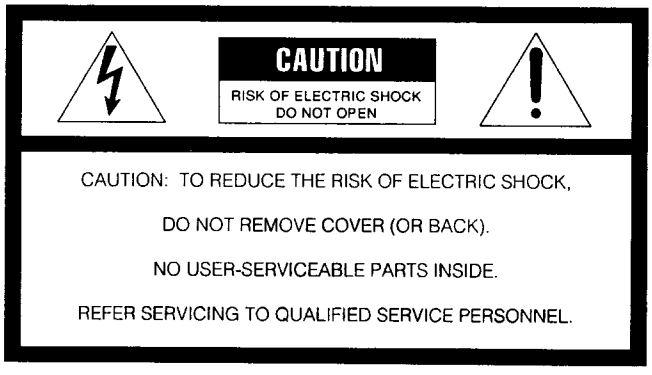
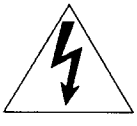
Warning

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Note to CATV system installer
This reminder is provided to call the CATV system installer's attention to Article 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Owner's Record

The model number is located on the rear exterior and serial number is on the rear. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No._____ Serial No._____

For the customers in Canada

CAUTION :
TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

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T63A

T63

Outline

The STR-AV770X is a FM Stereo/FM-AM receiver and audio/video control center.
You can enjoy various audio/video program sources with this unit.

TV/video programs
- You can enjoy TV or CATV programs with FM simulcast.
- Sounds from various audio program sources can be added on video tapes during editing.

Tuner
- Precise tuning is ensured by a quartz lock digital synthesizer.
- Station Index system allows you to tune into a station quickly.

Remote control
- The supplied remote commander allows you to remotely control both the unit and the equipment connected to the unit.

Display
- The frequency of each tuned-in broadcast station is displayed.
- The current selection/operation is displayed to clearly indicate what is taking place.

Surround sound system
This unit incorporates all of 3 types of surround effect.
- DOLBY SURROUND * — expands sound just like listening to it in a movie theater.
- Hall Surround-provides reverberation effect that is produced in a large concert hall.
- Simulated Surround-gives the feeling of width and thickness to monaural sound of old movie program, etc.

Precautions

On safety
- Before operating the unit, be sure that the operating voltage of your unit is identical with that of your local power supply.
- Should any solid object or liquid fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it is not to be used for an extended period of time. To disconnect the cord, pull it out by grasping the plug. Never pull the cord itself.
- One blade of the plug is wider than the other for the purpose of safety and will fit into the power outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.

On operation
- Before making program source connections, be sure to turn the power switch off and unplug the unit.

On cleaning the cabinet
Clean the cabinet, panel and controls with a soft cloth lightly moistened with mild detergent solution. Do not use any type of abrasive pad, scouring powder, or solvent such as alcohol or benzine.

For the customers in the U.S.A.
For detailed safety precautions, see the "IMPORTANT SAFEGUARDS" leaflet.

If you have any question or problem concerning your unit, please consult your nearest Sony dealer.

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* Manufactured under license from Dolby Laboratories Licensing Corporation. Additionally licensed under one or more of the following patents: U.S. numbers 3,632,886, 3,746,792, and 3,959,590. Canadian numbers 1,004,603 and 1,037,877. "DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

Installing

Notes on Installation

To prevent internal heat buildup in the unit,
place the unit in a location with adequate air circulation.

Do not install the unit:
— near heat sources such as radiators or air ducts.
— in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.

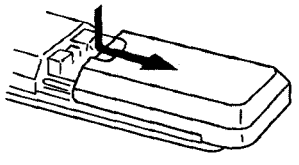
Do not place anything on top of the cabinet.
The top ventilation holes must be unobstructed for the proper operation of the unit and to prolong the life of its components.

Do not throw away the carton and packing material!
It will be an ideal container when transporting the system for repair work, etc.

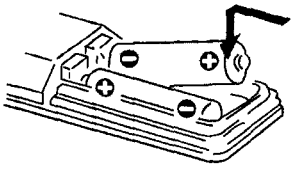
Loading the Remote Commander with Batteries

Before operating remote commander, install the batteries as shown.

1



2 Two size AA (R6) batteries



To avoid damage caused by battery leakage and corrosion
When the commander will not be used for a long time, remove the batteries.

Battery life
Normal operation can be expected about a half year using Sony SUM-3 (NS), and a year using Sony AM-3 (NW) alkaline batteries.
When the batteries are run down, the remote commander will not operate the unit. In this case, replace batteries with new ones.

Changing the AM tuning interval
The AM tuning interval is preset to 10 kHz. To use the receiver where the frequency allocation system is based on a 9 kHz interval, make the following adjustments.

1 Turn on the power and tune in any AM station.
2 Turn off the power.
3 Press the POWER button while pressing the "+" PRESET TUNING button.

To reset the AM tuning interval, repeat the above steps.

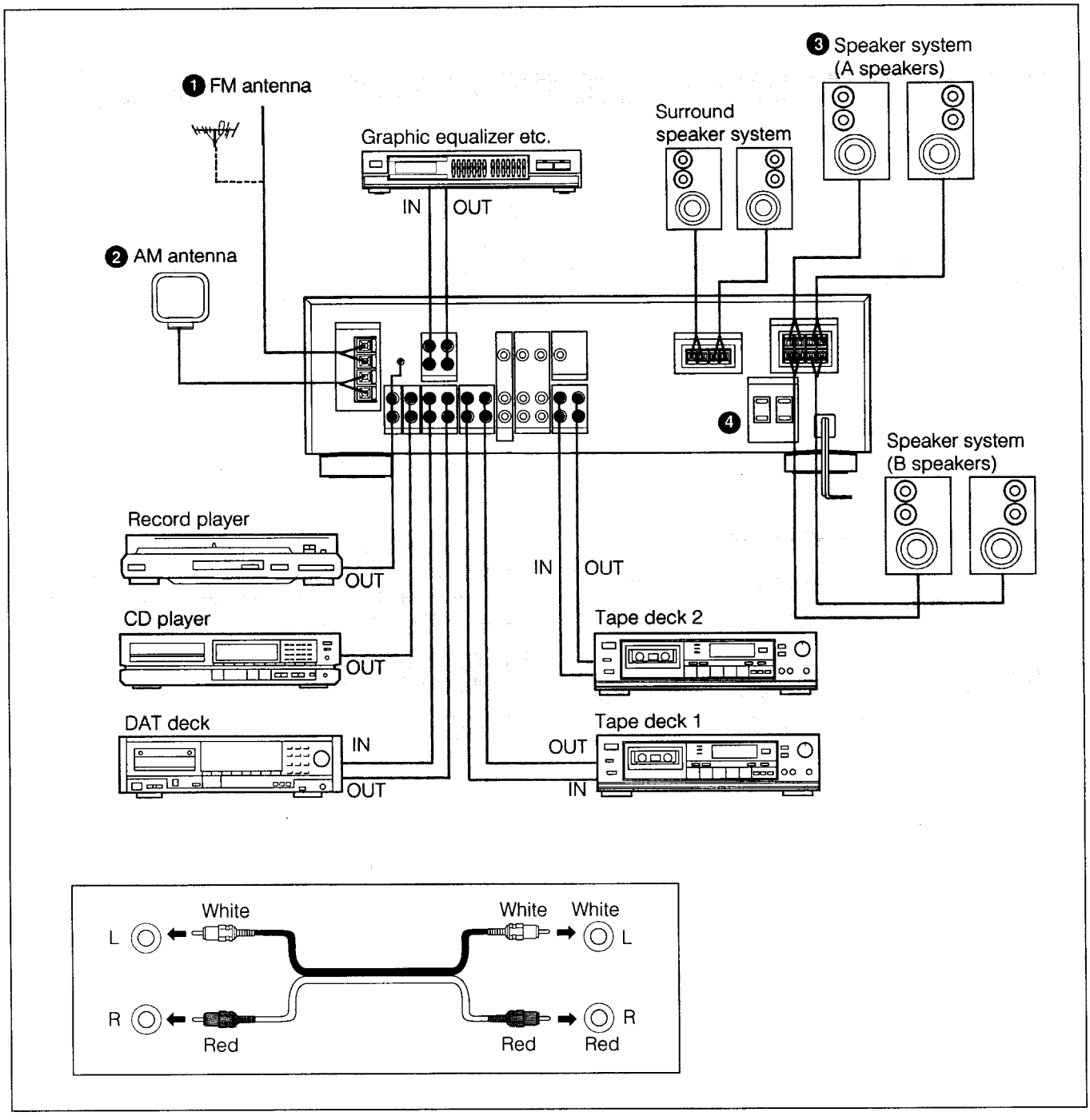
Caution
When the interval is changed, all preset stations which you have memorized will be erased. After changing the interval, be sure to preset the stations again.

Connections

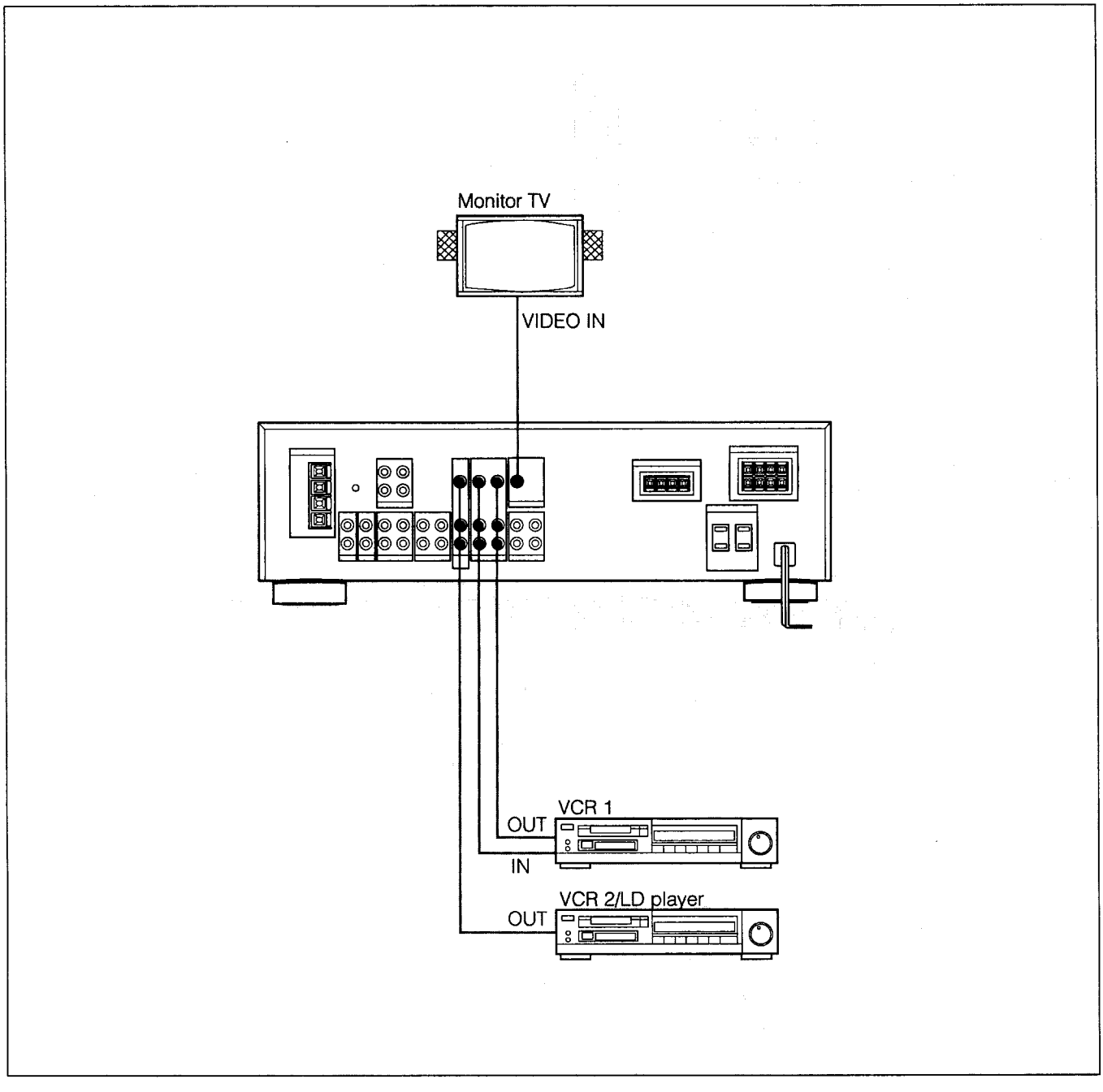
Notes on Connections

- Do not connect the power cord to an AC outlet nor press the POWER switch before accomplishing all other connections.
- The cable connectors should be fully inserted into the jacks. Loose connection may cause hum and noise.
- Jacks and plugs of the connecting cord are color-coded as follows:
  Red jacks and plugs: For the right channel of audio signals
  White jacks and plugs: For the left channel of audio signals
  Yellow jacks and plugs: For video signals

Connecting Audio Equipment

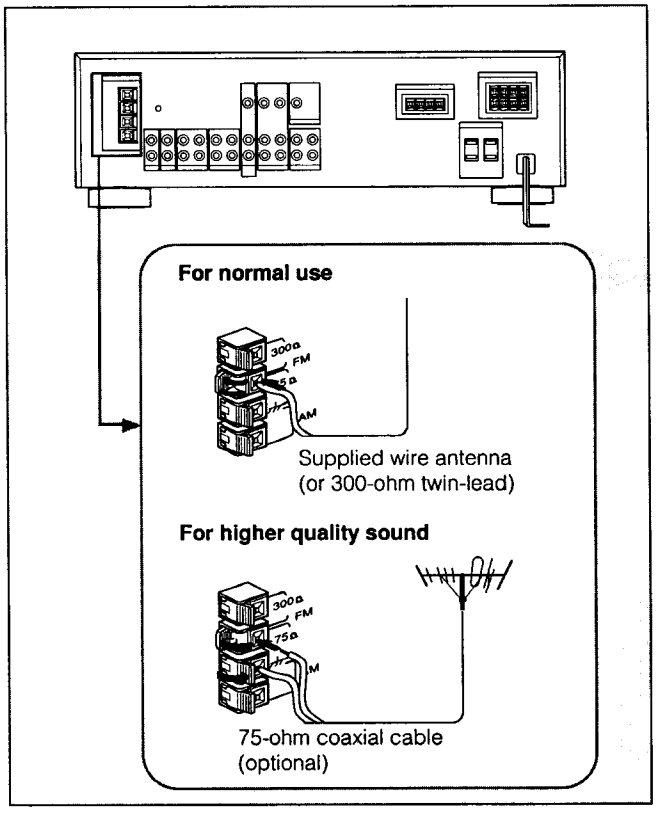


Connecting Video Equipment



Connections

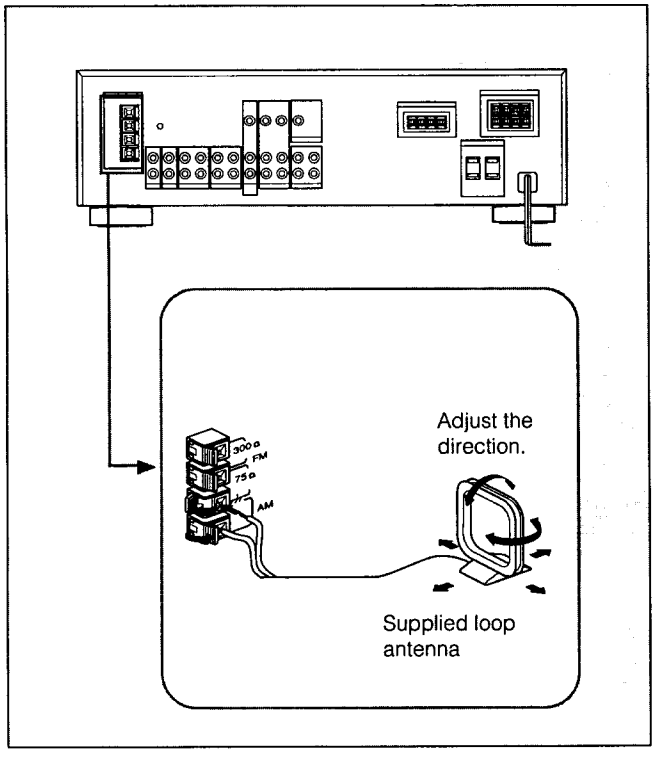
① Connecting the FM Antenna



Connecting the Antenna Ground

To prevent hum, connect the ground wire to ANTENNA ground terminal (⏚).
When an outdoor antenna is installed, be sure to connect the ground wire for lightning protection.

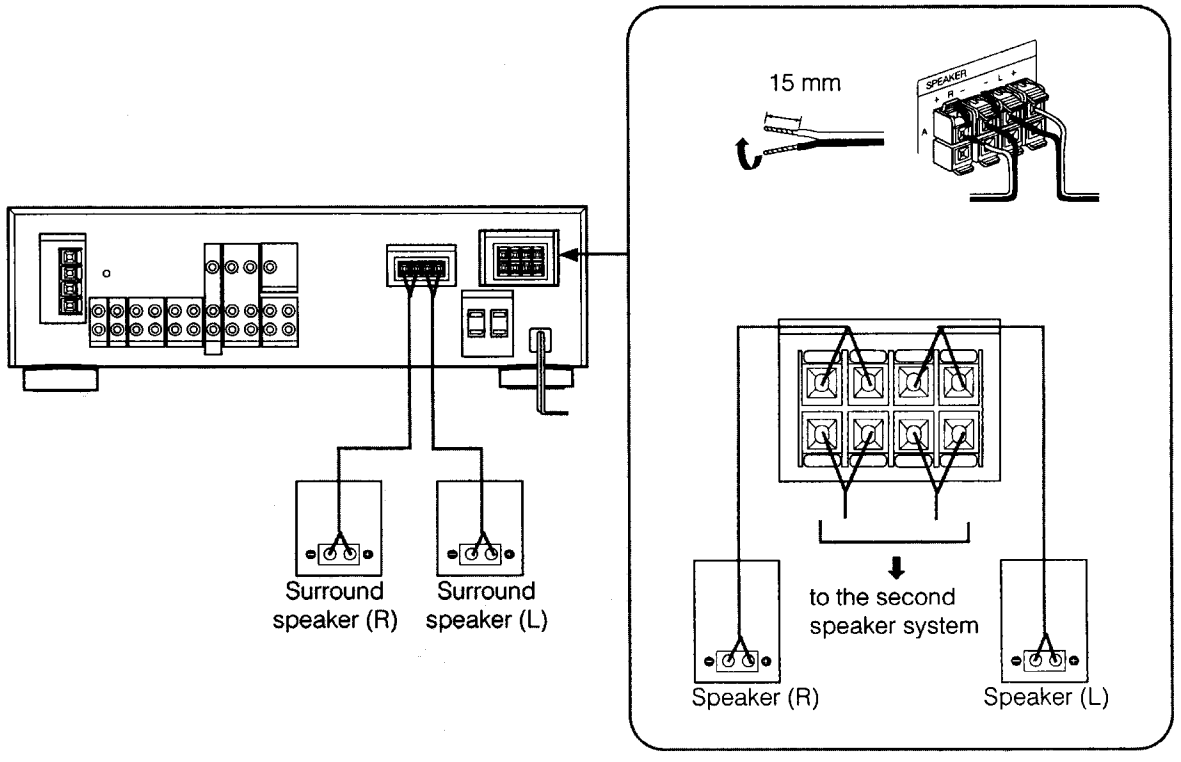
② Connecting the AM Antenna



For areas with difficult AM reception
In areas with troubled reception, connect a 6 to 15-meter (20 to 50-foot) insulated wire to the AM antenna terminal. Extend this out of doors if possible, keeping the greater portion horizontal.
(There is no need to disconnect the supplied antenna.)

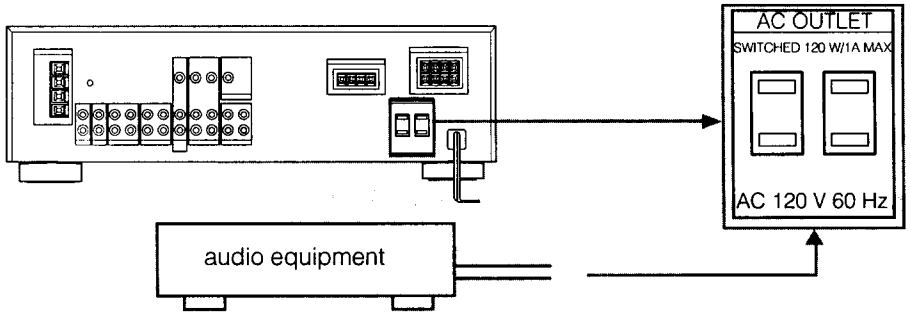
To prevent hum
Connect the ground wire to ANTENNA ground terminal (⏚).
When an outdoor antenna is installed, be sure to connect the ground wire for lightning protection.

③ Connecting Speaker Systems



Speaker impedance and power capability
This receiver is designed to work best with speakers having nominal impedance from 8 to 16 ohms. Be sure to use a speaker system with adequate nominal impedance and power handling capabilities.

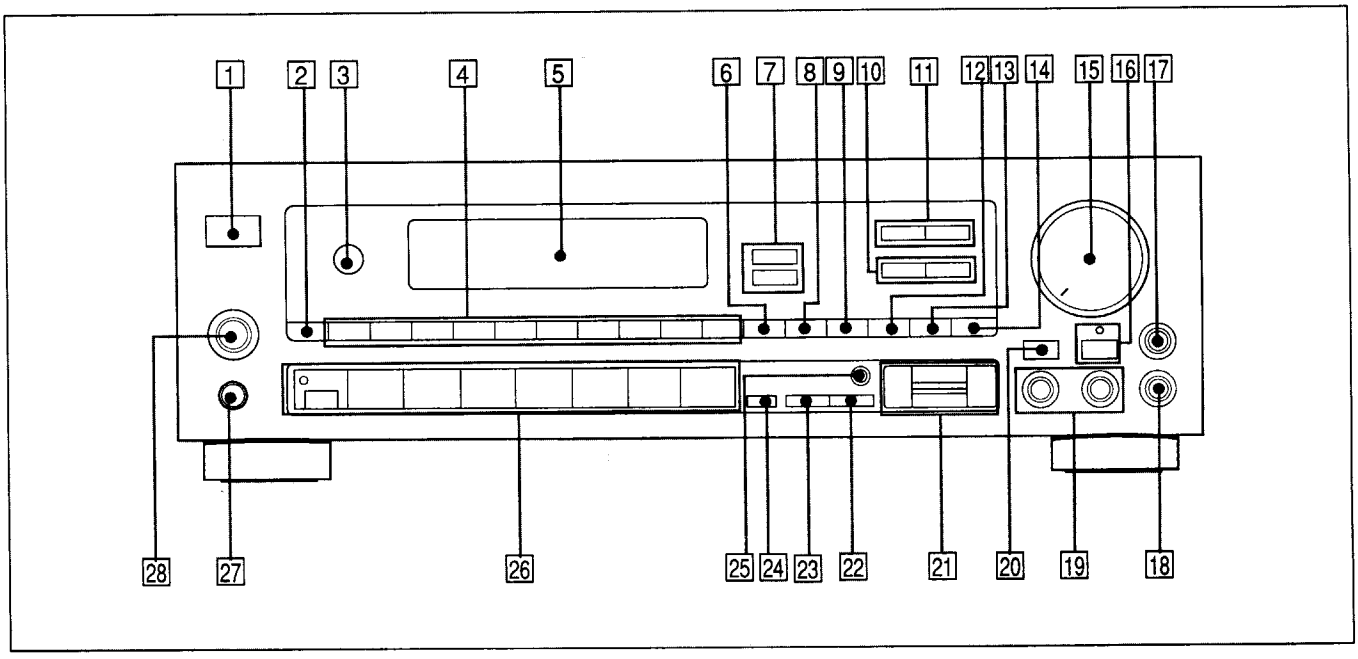
④ Connecting the AC Power



Caution
Be careful that the total power consumption of each equipment connected to the outlets on the receiver does not exceed 120 watts.
Do not connect electrical home appliances such as an electric iron, fan, TV, or other high-wattage equipment to these outlets.

Parts Identification

Front Panel



1 POWER switch

2 SHIFT button

3 Remote control sensor

4 Numeric buttons

5 Display window

6 MEMORY button

7 CURSOR MODE indicators

8 FM MODE button

9 FM/AM button

10 PRESET TUNING +/– buttons

11 INDEX SELECT/ TUNING +/– buttons

12 TUNING DIRECT button

13 TUNING LEVEL button

14 DISPLAY mode button (FREQ/INDEX)

15 VOLUME control

16 MUTING switch and indicator

17 INPUT BALANCE control

18 BALANCE control

19 BASS/TREBLE TONE controls

20 DBFB (Dynamic Bass Feed Back) button

21 CURSOR MODE operation buttons

22 SURROUND MODE selector

23 SURROUND ON/OFF button

24 EDIT AUDIO button

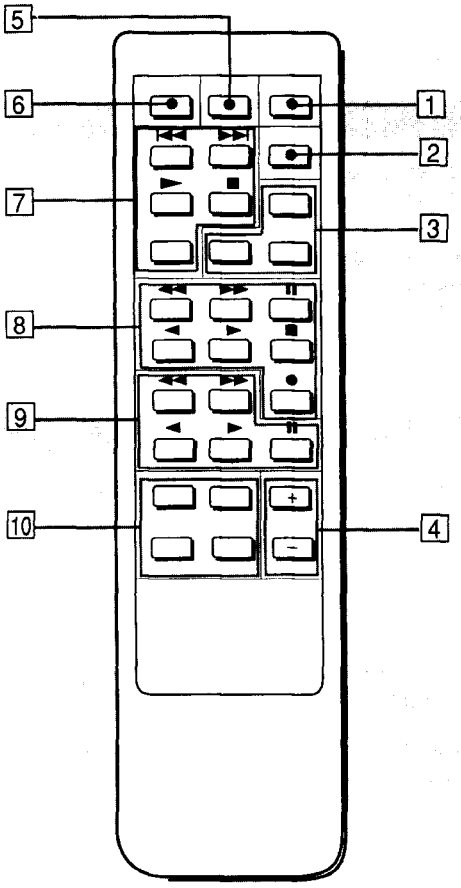
25 CURSOR MODE switch

26 Function selectors and TAPE 2 MONITOR indicator

27 HEADPHONES jack

28 SPEAKERS selector

Remote Commander RM-S103



1 **POWER button**

2 **DBFB button** (page 12)

3 **TUNER PRESET +/– and SHIFT buttons** (page 16 and 17)

4 **VOLUME +/– buttons**

5 **SURROUND button** (page 22)

6 **MUTING button** (page 12)

7 **CD player operation buttons***
D. (disc) SKIP: When your CD player is equipped with a multi-disc changer, use this button to select loaded disc.
CD ►: Selects the CD function and starts CD playback.

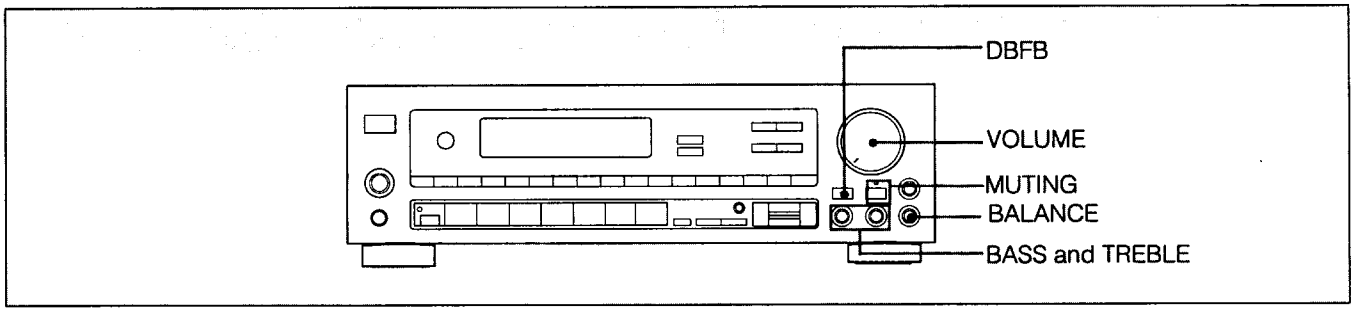
8 **DECK B operation buttons*** (also for single tape deck)
DECK B ◄/►: Select tape function and start tape playback on deck B.

9 **DECK A operation buttons***
DECK A ◄/►: Select tape function and start tape playback on deck A.

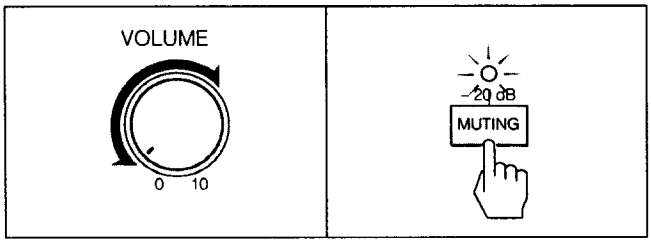
10 **Function select buttons**

* These buttons control Sony audio components.

Audio Adjustment



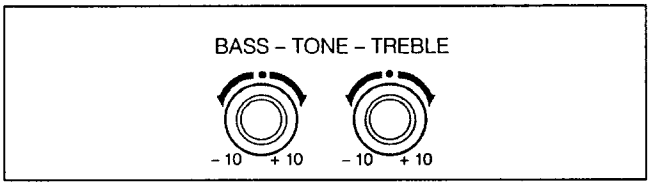
Adjusting volume



To adjust volume
Turn VOLUME.

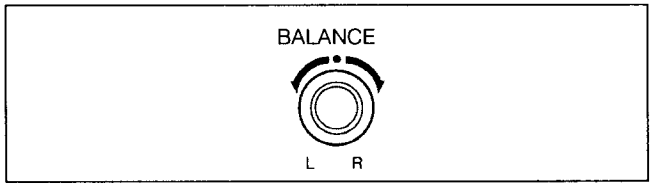
To reduce the sound to a low level temporarily (– 20 dB attenuation)
Press MUTING.
Press again to restore the same listening level as before.

Adjusting Tone Quality



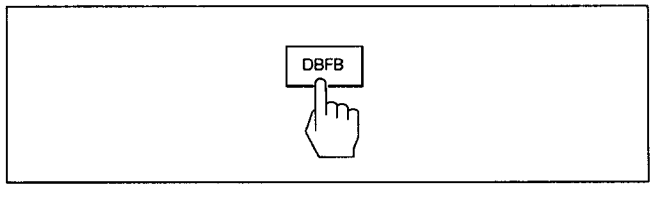
Adjust BASS or TREBLE for the optimum sound.

Adjusting Left and Right Sound Balance



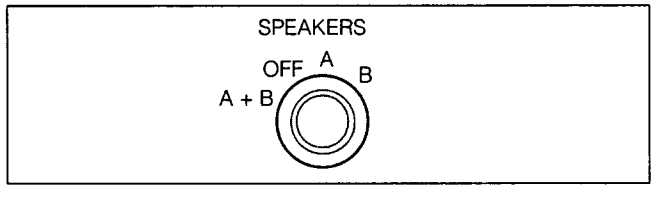
Adjust BALANCE to correct stereo imaging, when the speaker position is not symmetrical.

Reinforcing the Bass



Press DBFB (Dynamic Bass Feed Back) so that DBFB ON appears on the display.
Press again to turn off the effect so that DBFB OFF appears on the display.

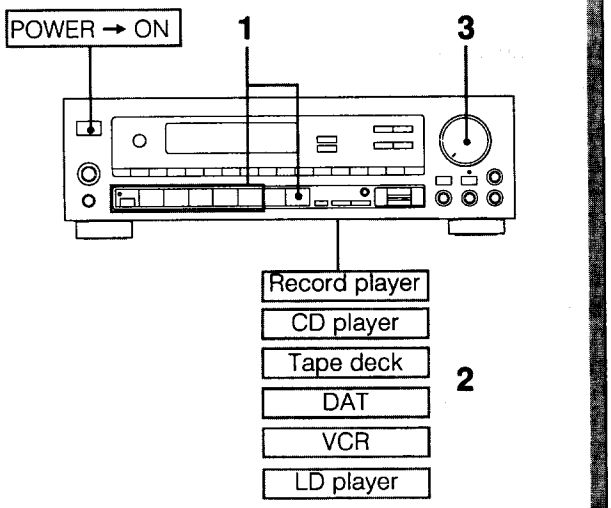
Selecting the Speaker System



To drive speaker system A: Set SPEAKERS to A.
To drive speaker system B: Set SPEAKERS to B.
To drive both speaker systems A and B: Set SPEAKERS to A + B.
For headphone listening: Connect headphones to HEADPHONES and set SPEAKERS to OFF.

IMPORTANT
Speaker systems A and B are series connected. No sound can be heard if the SPEAKERS selector is set to A + B when only one speaker system is connected.

Selecting a Program Source



1 Select the program source.

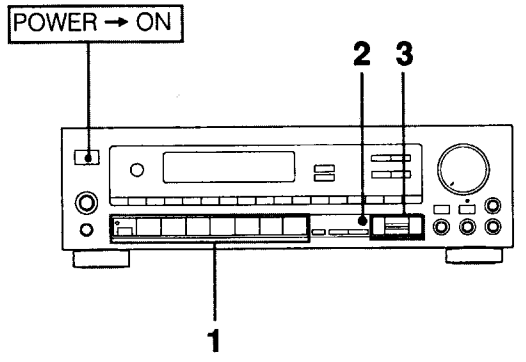
	FUNCTION selector to be pressed
Phono record	PHONO
Radio Broadcast	TUNER
Compact disc	CD
DAT programs	DAT
Taped programs	TAPE 1, TAPE 2 MONITOR
Video programs	VIDEO 1, VIDEO 2/LD

2 Start the selected program.

3 Adjust the volume.

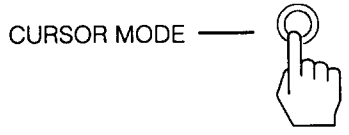
Labeling the Program sources

You can create the desired name (up to 11 characters) for the functions except TUNER.

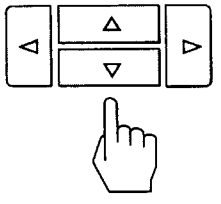


1 Select the program source.

2 Select the INDEX mode.



3 Create an index name.



To select a letter or number (1 - 9), press △ or ▽.
To change the position, press ◁ or ▷.

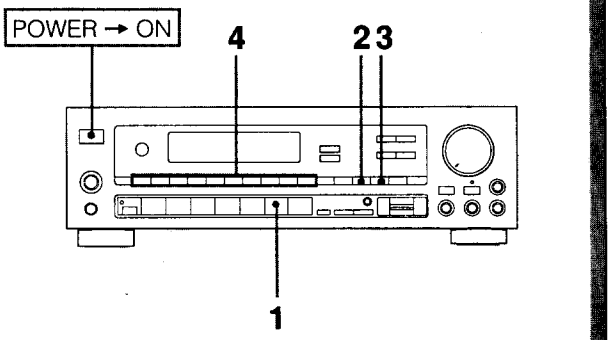
4 Repeat Steps 1 to 3 for all other program sources you want to assign an index name to.

Each program source can be stored under only one index name
If you input an already stored source under any other index name, only the last selected source will be valid.

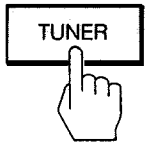
To display the selected function and its name you create
Each time the FREQ/INDEX button is pressed, the selected function and the created name are alternately displayed.

Radio Reception

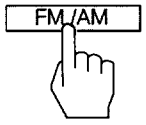
Tuning in a Station Directly — Direct Tuning



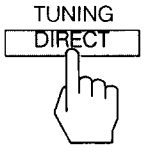
1



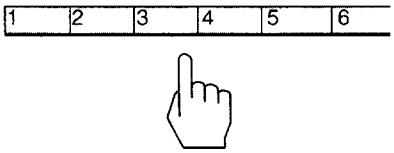
2 Select FM or AM.



3

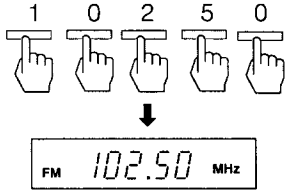


4 Enter the frequency.

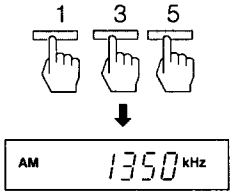


The entered frequency is displayed.

Example 1: FM 102.50 MHz



Example 2: AM 1350 kHz



To correct the entered frequency
Repeat Steps 3 to 4.

For entering AM frequencies, you need not enter the last "0".
However, if you have changed the AM tuning interval to 9 kHz, enter all the digits.

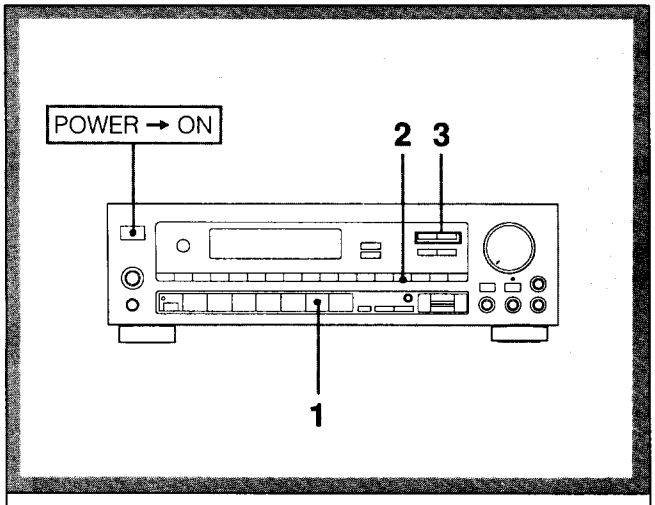
If you enter a frequency not covered by the tuning interval
The entered value is automatically rounded up or down to the closest value covered by the tuning interval.
Tuning intervals for direct tuning are the followings:
FM: 50 kHz interval
AM: 10 kHz interval (changeable to the 9 kHz interval)

When the entered number is not in the receivable frequency range
The entered digits (up to 5 digits for FM or up to 3 digits for AM) blink in the frequency display area, and reception does not take place.
If this occurs, press TUNING DIRECT again, and enter the correct frequency (the frequency range of the receiver is 87.50 to 108.0 MHz for FM, and 530 to 1710 kHz for AM).

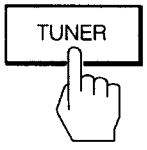
When an FM stereo program is noisy
When the unit receives an FM stereo program, the STEREO indicator goes on in the display window, If the stereo program is noisy, press FM MODE to change the mode over the MONO. This eliminates the stereo effect, but the noise will be greatly reduced.
To return to the stereo mode, press FM MODE again.

Scanning Stations Automatically — Auto Tuning

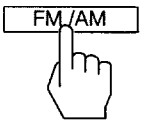
When you do not know the frequency of the station, proceed as follows.



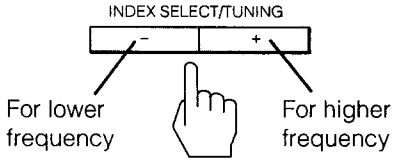
1



2 Select FM or AM.



3



When a station is received, automatic tuning stops.

4 Repeat step 3 until the desired station is received.

If the automatic scan stops frequently (for FM reception only)

You can select the signal level to receive, so that the scan stops only at the stations with the strong signal.

To select the signal level

Press the TUNING LEVEL button so that the HIGH indicator appears on the display.

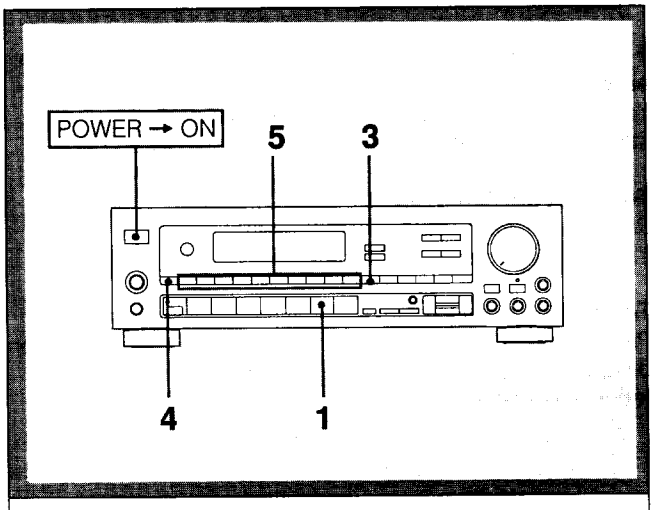
To receive lower signals again

Press the TUNING LEVEL button so that the HIGH indicator disappears from the display, and the scan stops at all receivable stations.

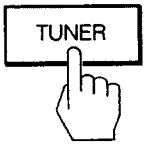
Radio Reception

Presetting Stations — Station Preset

A total of 30 FM/AM stations can be memorized in any desired sequence.

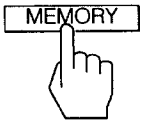


1



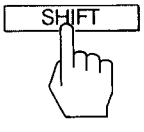
2 Tune in the desired station.
(See "Auto Tuning" or "Direct Tuning".)

3

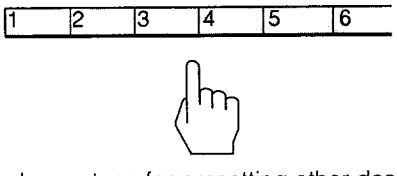


The MEMORY indicator appears for a few seconds.

4 While the MEMORY indicator is on, select the memory page (A, B or C).



5 While the MEMORY indicator is on, press the desired number.



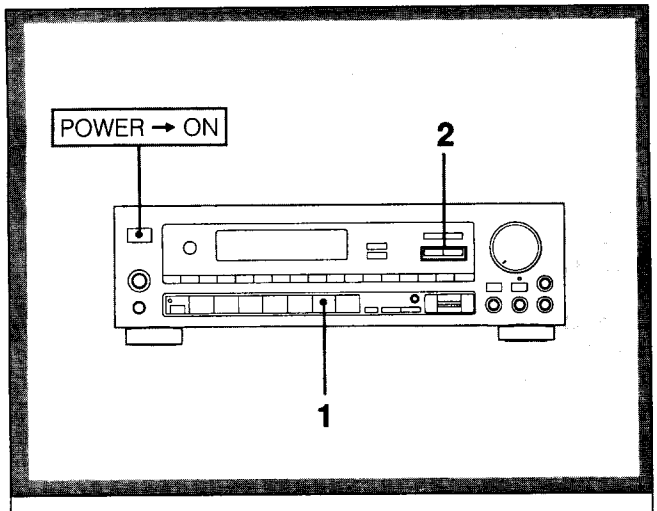
Repeat above steps for presetting other desired stations.

Replacing a preset station
Preset another station on the number of the station to be replaced. The previously preset station will be erased.

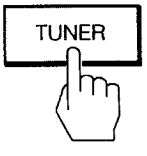
Memorizing FM mode
The FM MODE setting is also memorized in the station presetting.
In step 2, select the STEREO or MONO mode with the FM MODE button, if necessary.

Tuning in a Preset Station — Preset Tuning

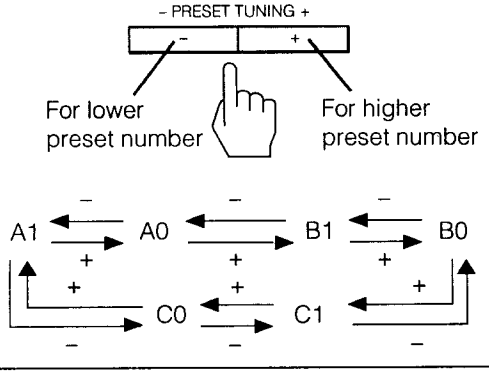
Method A



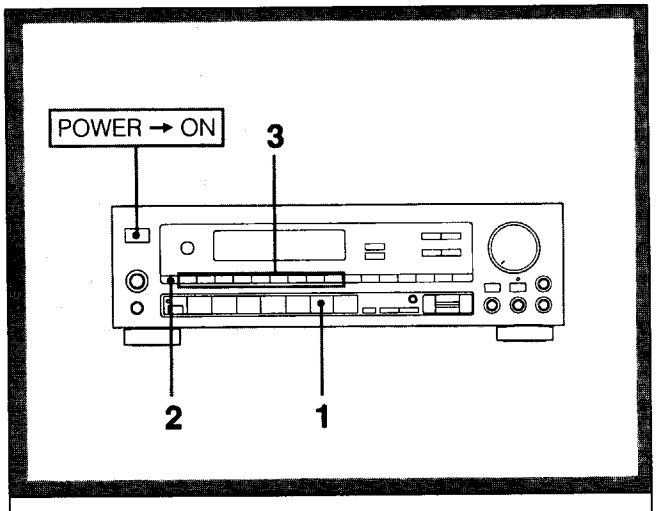
1



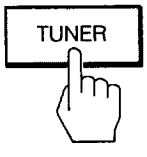
2 Select the desired preset station.



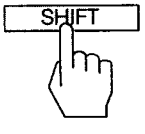
Method B



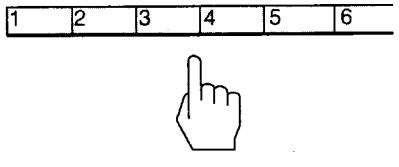
1



2 Select the memory page (A, B, or C).



3

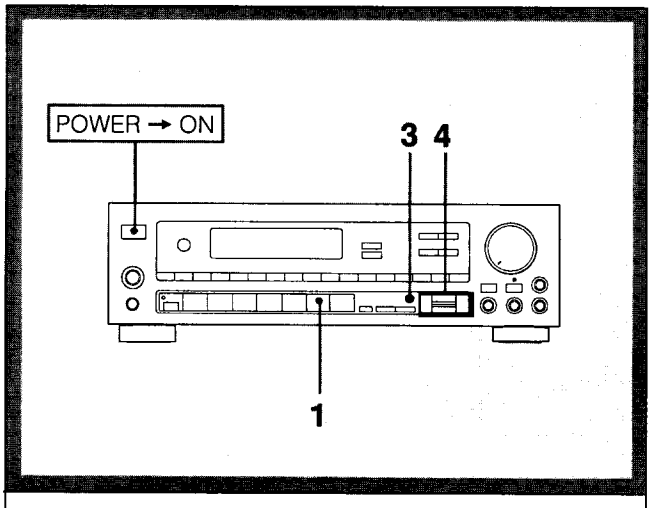


IMPORTANT

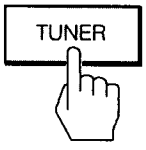
The memorized station is maintained for approximately one month even if the power cord is disconnected from the AC power source. If they are erased, store the stations again.

Labeling the Preset Stations — Index Input

You can divide preset stations under index names you create (up to 5 characters). If you want to categorize the preset stations by kinds of music, for example, create indexes such as ROCK, JAZZ, etc.

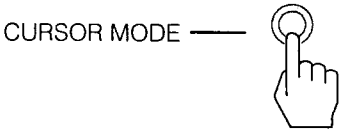


1

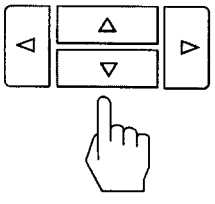


2 Tune in the desired station with Preset Tuning.

3 Select the INDEX mode.



4 Create an index name.



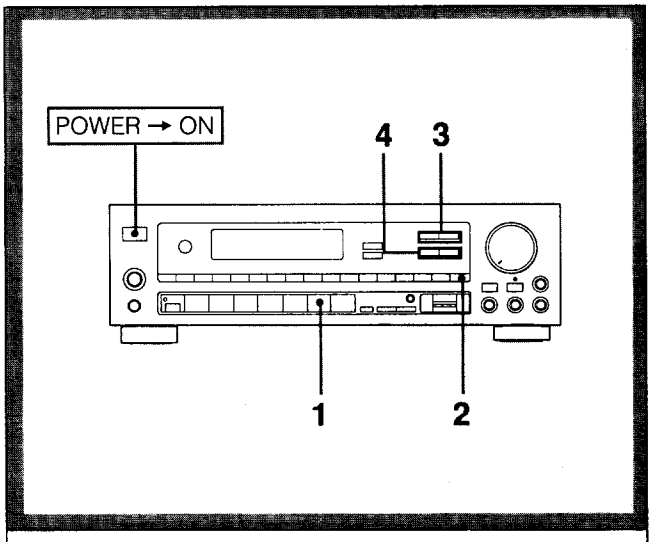
To select a letter or number (1 - 4), press △ or ▽.
To change the position, press ◁ or ▷.

5 Repeat Steps 2 to 4 for all other stations you want to assign an index name to.

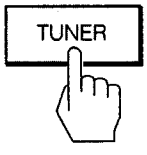
Each station can be stored under only one index name
If you store an already categorized station under any other index name, only the last selected category will be valid.

To display the frequency and index name of preset stations
Each time the FREQ/INDEX button is pressed, frequency and index name of preset station are alternately displayed.

Selecting a Station among the Preset Stations having the Index Name — Index Tuning

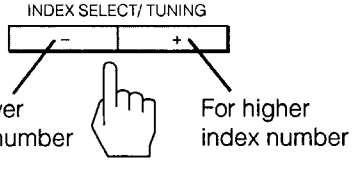


1

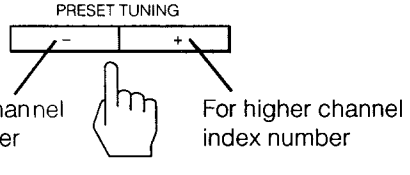


2 Select the INDEX mode.

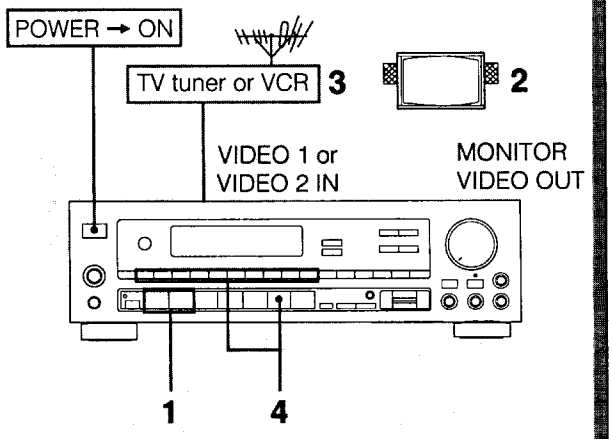
3 To select the index name.



4 Select the desired station memorized under the same index name.



Receiving FM Simulcast TV programs

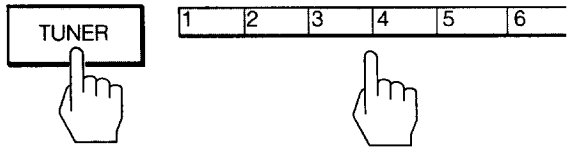


1 Select VIDEO 1 or VIDEO 2/LD.
According to video inputs connected to an equipment to which the VHF antenna is connected.

2 Turn on the monitor TV.

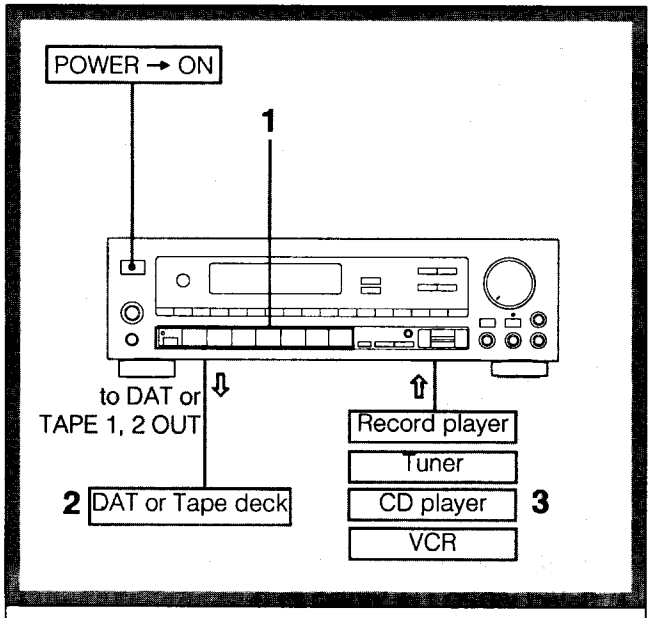
3 Select the desired program on the TV tuner or the VCR.

4 Select TUNER and tune in the FM simulcast TV program on the receiver.



Audio Recording

Recording on an Audio Tape Deck or DAT Deck

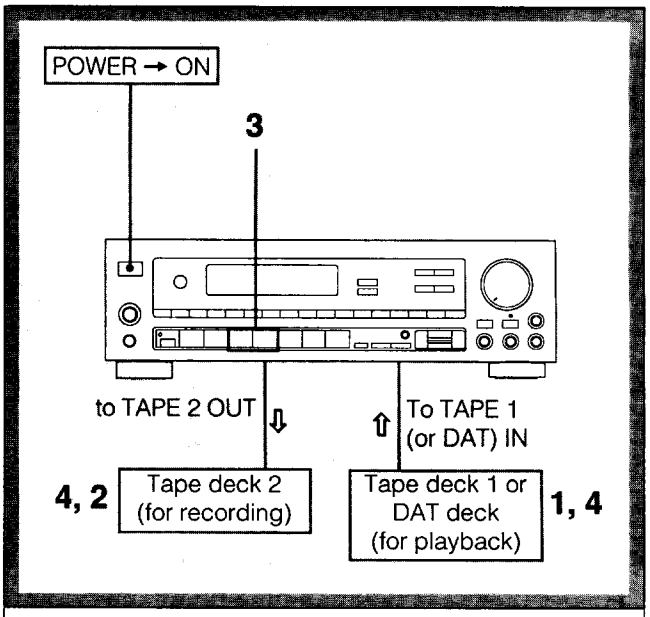


1 Select the desired program source with the FUNCTION selector.
For an FM/AM broadcast, tune in the desired station

2 Set the tape (DAT) deck in the recording mode.

3 Start the selected program source.

Tape Dubbing



1 Insert the recorded tape into tape deck 1 (or the DAT deck).

2 Insert a blank tape into tape deck 2 and adjust the recording level.

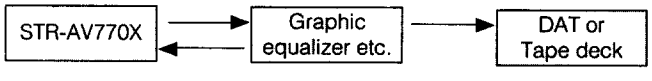
3 Press TAPE 1 or DAT to select the deck for playback.

4 Start the playback of the tape (or the DAT) in tape deck 1 (or the DAT deck), and set tape deck 2 in the recording mode.
Dubbing will start.

To record the SURROUND, DBFB and TONE control settings

If you have connected graphic equalizers or other effectors to the ADAPTOR input, you can record the settings through the equalizer.

Connection:



Note: If you disconnect one of these, no sound will be heard from the receiver.

Note on tape dubbing

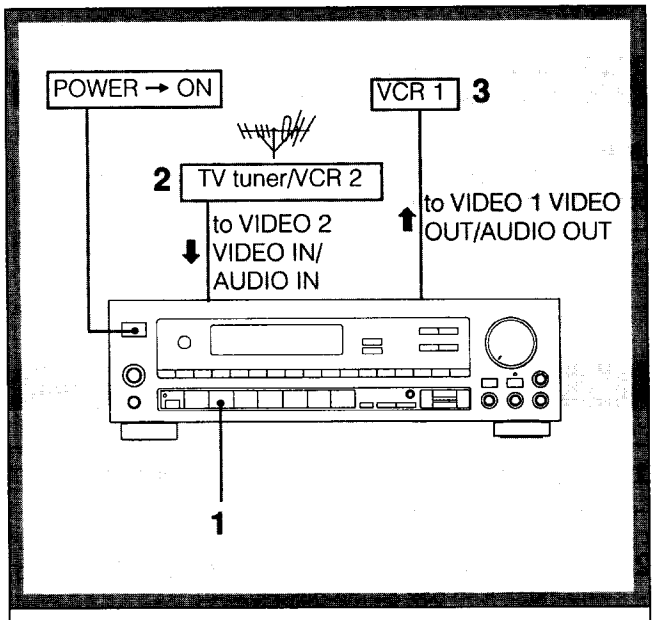
Tape dubbing is possible only in the following directions:

From (playback side)	To (Recording side)	FUNCTION selector to be pressed
Tape deck connected to TAPE 1 IN	Tape deck connected to TAPE 2 OUT	TAPE 1
	DAT deck connected to DAT OUT	
DAT deck connected to DAT IN	Tape deck connect to TAPE 1 or 2 OUT	DAT

Video Recording

Video Tape Editing

Preparation
If the AUDIO indicator is lit in the display window, press the EDIT AUDIO button to make the indicator go out.



1 Press VIDEO 2/LD.

2 Set VCR 2 to the playback mode.

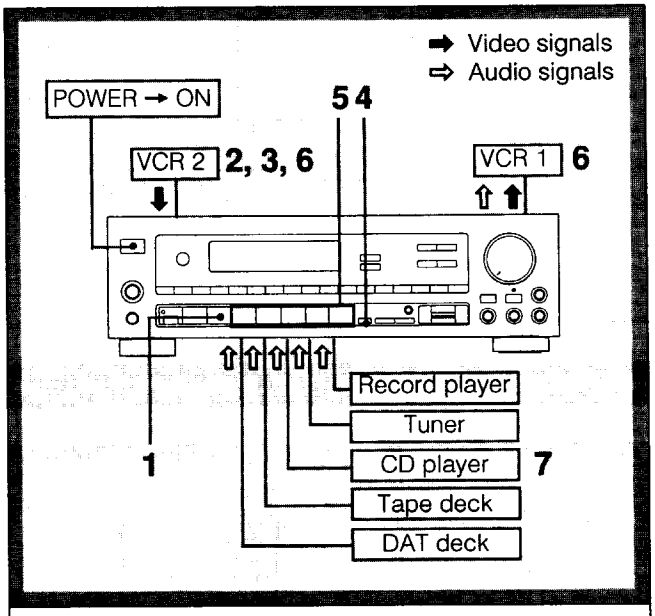
3 Set VCR 1 to the recording mode.

Listening to an audio program during video tape editing
1. Press the appropriate FUNCTION selector.
2. Start the selected audio program source.

Recording a TV program
You can record a TV program on VIDEO 1.

Adding New Sound on a Video Tape during Video Editing

During video tape editing, you can add the desired sound on the recording-side video tape from various audio program sources.



1 Press VIDEO 2/LD.

2 Insert a recorded video tape into VCR 2 and set the VCR to the playback mode.

3 At the point where audio dubbing is to start, press the PAUSE button on VCR 2.

4 Press EDIT AUDIO.

EDIT
VIDEO
AUDIO 2 ▶ 1

The AUDIO indicator appears.

5 Select the audio program source with the FUNCTION selectors.

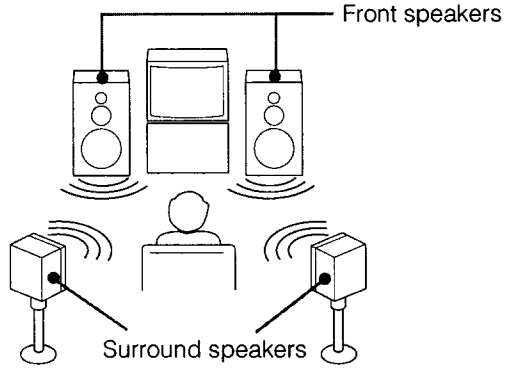
6 Release the pause mode of VCR 2 and set VCR 1 to the recording mode.

7 Start the selected audio program source.
Audio dubbing will start.

Obtaining the Surround Effect

Available Types of Effects

How to place speakers



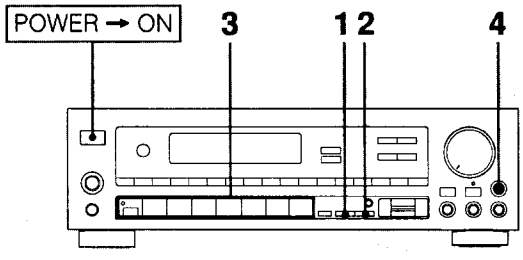
HALL: Provides reverberation effect that is produced in a concert hall.

SIMULATED: Gives a simulated stereo effect to monaural sound.

DOLBY: Expands sound just like listening it in a movie theater.

Note
Surround effect cannot be obtained with the program source connected to the ADAPTOR input.

Adjusting the Input Level for Dolby Surround System



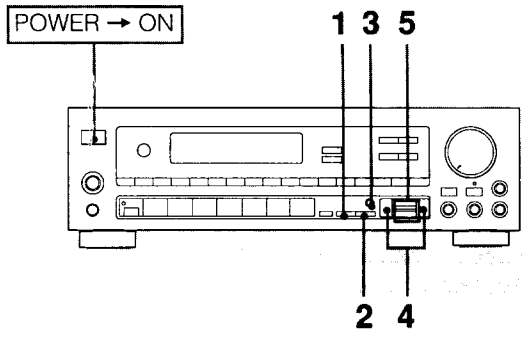
1 Press SURROUND ON/OFF, so that SURROUND ON appears in the display window.

2 Press SURROUND MODE so that the DOLBY surround indicator is in box on the display.

3 Select a program source with the function selector and start playback.

4 Adjust the INPUT BALANCE control until the monaural sound, such as a dialogue, heard from the surround speakers is minimized.

Listening with Surround Effect



1 Press SURROUND ON/OFF, so that SURROUND ON appears in the display window.

2 Press SURROUND MODE and select the desired mode, HALL, SIMULATED, DOLBY.

3 Press the CURSOR MODE button to set the surround mode.

4 Adjust DELAY TIME by pressing ◁ or ▷.

5 Adjust the surround speaker level by pressing LEVEL △ (+) or ▽ (–).

To turn off the surround effect
Press SURROUND ON/OFF again.
The normal sound without surround effect will resume.

Both level and delay time of the surround is memorized each time after adjusting with the CURSOR MODE operation buttons. They will be restored when the surround mode is resumed.

Specifications

Audio Power Specifications

POWER OUTPUT AND TOTAL HARMONIC DISTORTION

With 8-ohm load, both channels driven, from 20 - 20,000 Hz, rated 80 watts per channel minimum RMS power, with no more than 0.08% total harmonic distortion from 250 milliwatts to rated output.

Other Specifications

Amplifier section

Dynamic power output	8 ohms, at 1 kHz IHF	110 + 110 watts
	4 ohms, at 1 kHz IHF	140 + 140 watts
Harmonic distortion at rated output		Less than 0.08%
Intermodulation (IM) distortion at rated output		Less than 0.08%
Power output of surround amplifier (8 ohms, at 1 kHz)		20 watts (10 + 10 watts)
Frequency response	PHONO RIAA	equalization curve ±0.5 dB
	CD, DAT, TAPE 1,2 VIDEO 1,2	10 Hz — 50 kHz $^{+0}_{-3}$ dB
Residual noise		Less than 80µV
Damping factor (8 ohms, at 1 kHz)		40
Input sensitivity/ impedance	PHONO MM	2.5 mV, 50 kilohms
	DAT,CD, VIDEO 1,2 TAPE 1,2	150 mV 50 kilohms
S/N	PHONO MM	87 dB 79 dB* (A,2.5mV)
	DAT, CD VIDEO 1,2 TAPE 1,2	105 dB 85 dB* (A,150mV)
Output sensitivity/ impedance	DAT OUT, TAPE OUT 1,2 VIDEO 1	150 mV 10 kilohms
	SPEAKERS	Accepts speakers of 8 — 16 ohms
	HEADPHONES	Accepts headphones of high and low impedance
TONE controls		BASS: ±10dB at 100 Hz TREBLE: ±10dB at 10 kHz
Muting		-20dB
DBFB		+10 dB (70 Hz)

* '78IHF

AM tuner section

Frequency range	530 — 1710 kHz (with 10 kHz interval) 531 — 1710 kHz (with 9 kHz interval)
Antenna	Loop antenna
Usable sensitivity	50 dB/m (at 1,000 kHz or 999 kHz)
S/N	54 dB (at 50 mV/m)
Harmonic distortion	0.5% (50 mV/m, 400 Hz)
Selectivity	35 dB (9 kHz), 40 dB (10 kHz)
Auto tuning threshold	55 dB/m

FM tuner section

Frequency range		87.5 — 108.0 MHz
Antenna terminals		300 ohms, balanced 75 ohms, unbalanced
Sensitivity at 50 dB		18.3 dBf, 4.5 µV (mono) 38.3 dBf, 45 µV (stereo)
Usable sensitivity		11.2 dBf, 2 µV (IHF)
S/N	Mono	80 dB
	Stereo	74 dB
Harmonic distortion at 1 kHz	Mono	0.3 %
	Stereo	0.5 %
IM distortion	Mono	0.3 %
	Stereo	0.5 %
Separation		45 dB at 1 kHz
Frequency response		30 Hz — 15 kHz $^{+0}_{-2}$ dB
Selectivity		60 dB at 400 kHz
Capture ratio		1.2 dB
AM suppression ratio		54 dB
Image response ratio		70 dB
IF response ratio		70 dB
Spurious response ratio		80 dB
RF intermodulation at 800 kHz		60 dB
Auto tuning threshold	Low	30 dBf
	High	50 dBf

Video section

Inputs	VIDEO 1,2: 1 Vp-p 75 ohms
Outputs	VIDEO 1, MONITOR: 1 Vp-p 75 ohms

General

System	Tuner section	PLL quartz-locked digital synthesizer system
	Preamplifier section	Low-noise NF type equalizer
	Power amplifier section	Quasi-complimentary SEPP
Power requirements		120 V AC,60 Hz
Power consumption		USA model: 190 watts Canada model: 360 VA
AC outlets		Two switched, total 120 W/1A
Dimensions		430 x 135 x 355 mm (17 x 5 3/8 x 14 inches)
Weight		9.7 kg (21 lb 6 oz)

Supplied accessories
FM wire antenna (1)
AM loop antenna (1)
Remote commander (1) RM-S103
Sony Batteries SUM-3(NS) (2)

Design and specifications subject to change without notice.

Troubleshooting Guide

Before proceeding through the check list below, examine the connections and the procedures outlined in the manual. Should any problem persist after you have checked the following items, consult your nearest Sony dealer.

Radio Broadcast Reception

Problem	Cause	Solution
No FM station can be located by Auto-Tuning operation.	The signal strength of the stations is too weak.	Press the TUNING LEVEL button to set the receiving signal level low.
The STEREO indicator flickers or does not appear when receiving stereo programs.	A very weak FM station or a noisy FM program is received.	Adjust the antenna or connect an external FM antenna.
		Press the FM MODE button to set to MONO mode.
No station can be tuned in by Auto-Tuning operation.	The AM tuning interval is set incorrectly.	Change the tuning interval according to the AM frequency allocation system of your country. (See page 5)
	The signal strength of the station is too weak for Auto-Tuning.	Adjust the antenna.
		Directly tune in the stations. (See page 14)
No stations can be tuned in by pressing PRESET TUNING +/–.	No stations have been preset.	Preset the stations. (See page 16)

Surround Function

Problem	Cause	Solution
Surround effect cannot be obtained.	The unit is in a wrong mode.	Press the CURSOR MODE button to set the surround mode.
Surround effect cannot be adjusted.	Surround circuit is turned off.	Press SURROUND ON/OFF.

Remote Commander

Problem	Cause	Solution
The remote commander will not operate.	The batteries are exhausted.	Replace the batteries with new ones.
	The commander head is not pointed toward the unit's front.	Point the commander head toward the receiver.
	There is an object between the commander and the receiver.	Remove the object.

Sound

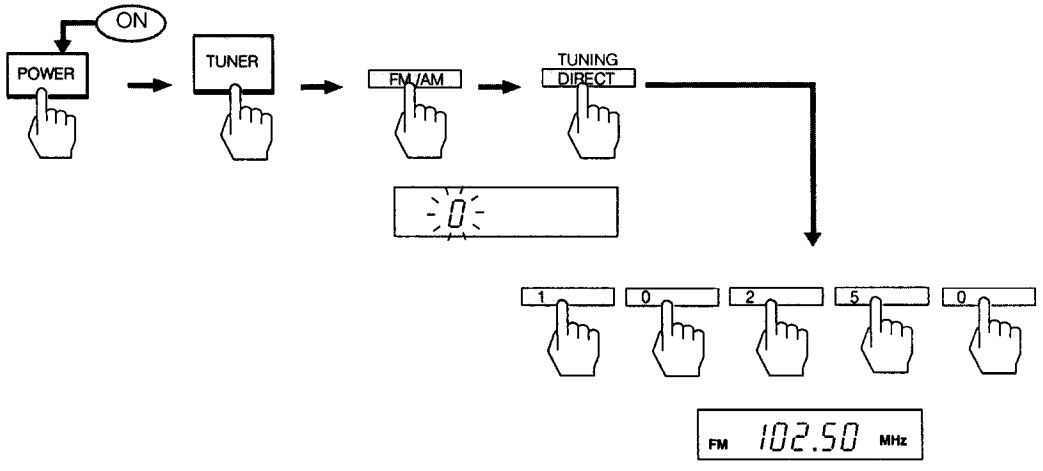
Problem	Cause	Solution
No sound is heard even if you adjust VOLUME.	The speaker or program source equipment is not connected correctly.	Connect the equipment correctly.
	The SPEAKERS selector is not set correctly.	Set the selector correctly.
	The TAPE 2 MONITOR button has been pressed for a program source other than tape deck 2. (The indicator is lit.)	Press the button to disengage.
	A wrong FUNCTION selector has been pressed.	Press the correct FUNCTION selector.
Sound is heard only at a very low volume.	The MUTING button has been pressed. (The MUTING indicator is lit.)	Press the button to disengage.
One channel does not transmit audio, or the volume from the left and right speakers is unbalanced.	The BALANCE control is not set appropriately.	Adjust the BALANCE control.
	The speaker or program source is not connected correctly.	Check and properly connect the equipment.
There is an abrupt loss of sound from one or both of the speakers, and the PROTECTOR indicator flickers in the display window.	A short-circuit problem activates the protective circuit.	Turn off the unit, eliminate the short-circuit problem and turn on the power again. If there is no short-circuit problem, consult your nearest Sony dealer.
Sound transmitted from the speakers is reversed.	The speakers are not connected correctly.	Connect the right speaker to the R SPEAKER terminals and the left speaker to the L SPEAKER terminals.
There is lack of bass sound or the instrument position is obscure.	The +/– connection of the speaker is reversed.	Connect the speaker with the correct phase.
Severe hum or noise is heard.	The connecting cords are not shielded type.	Use shielded type cords.
	A transformer, motor, TV or fluorescent light affects the connecting cords.	Place the connecting cords in a location away from a transformer or motor, and at least 3 meters (10 feet) from a TV set or a fluorescent light.
	The audio components are too close to a TV set.	If both are used at the same time, separate the TV from the audio components.
	The unit is not grounded.	Connect the ground wire to the antenna ground terminal.
	The connections are loose.	Make secure connections.
	The plugs and jacks are dirty.	Wipe the plugs and jacks with a cloth lightly dampened with alcohol.

Quick Reference

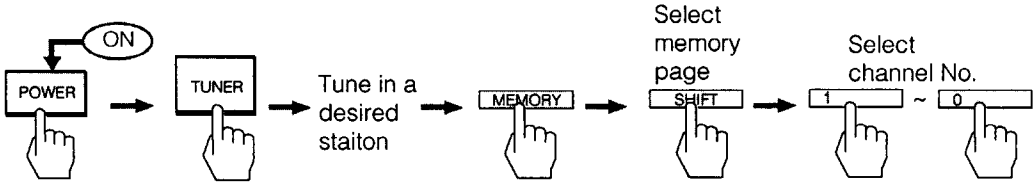
When operate the unit consulting this Quick Reference, make sure that the unit and the various audio/video equipment are properly connected.

Directly tuning in an FM or AM station

Ex. Tuning in the FM station of 102.5 MHz

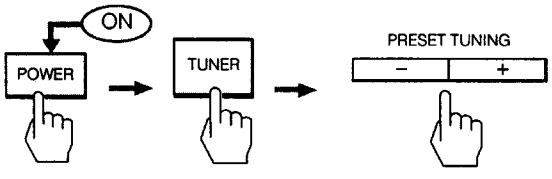


Presetting stations

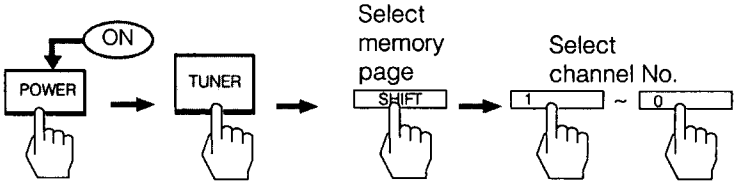


Tuning in a preset station

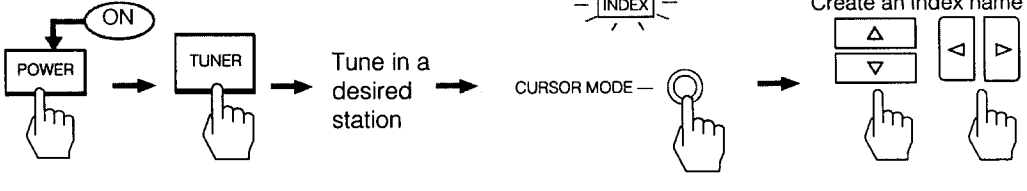
Method A



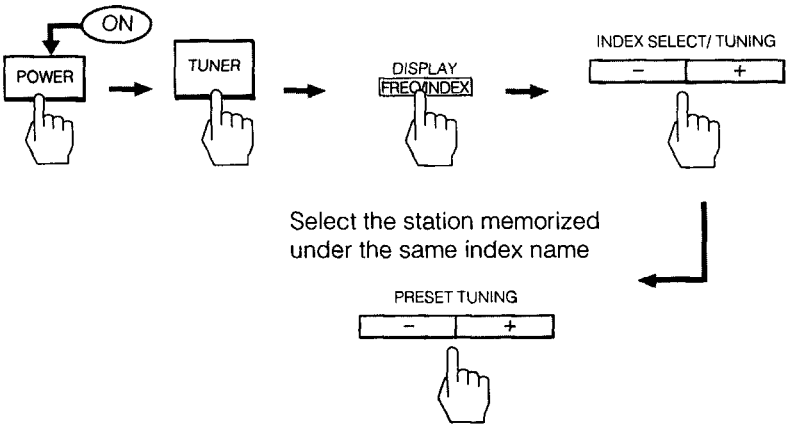
Method B



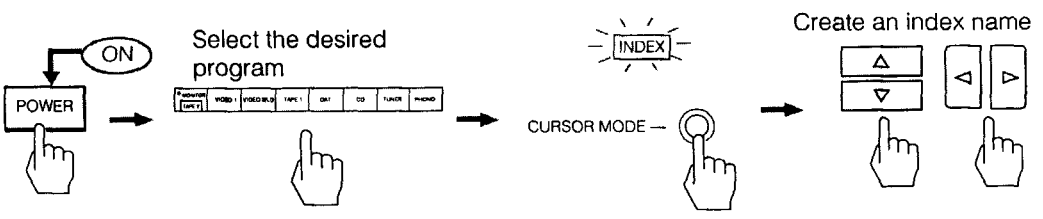
Presetting stations with Index Name



Tuning in a categorized station-index tuning

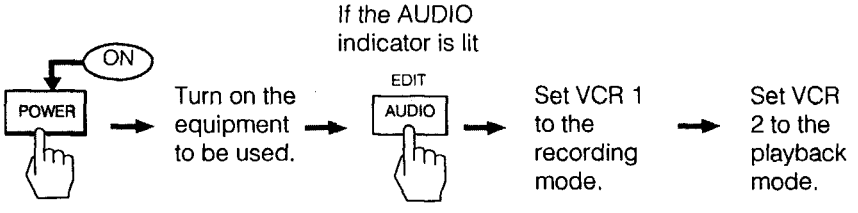


Labeling the program sources

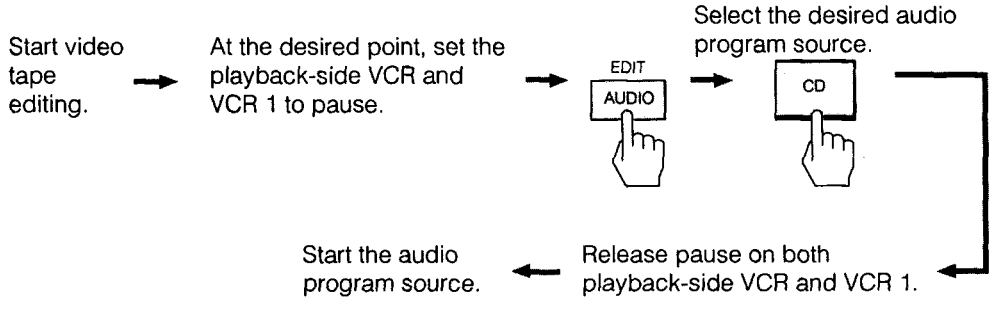


Video Operations

Video tape editing



Audio dubbing during video tape editing


Start video tape editing.
At the desired point, set the playback-side VCR and VCR 1 to pause.
EDIT
AUDIO
Select the desired audio program source.
CD
Release pause on both playback-side VCR and VCR 1.
Start the audio program source.